

CLAIM LISTING

This listing of claims will replace all prior versions, and listings of claims in the application:

AMENDMENTS TO THE CLAIMS

1. (Original) A bitstream for configuring a PLD with an encrypted design comprising:
a plurality of unencrypted words for controlling loading of configuration data; and
a plurality of encrypted words specifying the encrypted design.
2. (Original) The bitstream of Claim 1 wherein one of the unencrypted words comprises a key address for locating a decryption key for decrypting the encrypted words.
3. (Original) The bitstream of Claim 1 wherein one of the unencrypted words comprises an address register for loading the first word of the encrypted design.
4. (Original) The bitstream of Claim 1 further comprising a plurality of encrypted words for controlling loading of configuration data, wherein one of the encrypted words for controlling loading of configuration data specifies an address for loading a word of the encrypted design.
5. (Original) The bitstream of Claim 4 wherein another of the encrypted words for controlling loading of configuration data specifies an address for loading a word of the encrypted design.
6. (Original) The bitstream of Claim 1 wherein the unencrypted words for controlling loading of configuration data include a cyclic redundancy checksum for comparison to a cyclic redundancy checksum calculated by the PLD.

7. (Original) The bitstream of Claim 6 wherein the cyclic redundancy checksum in the bitstream is calculated on configuration data before the configuration data has been encrypted.

8. (Original) The bitstream of Claim 6 wherein the cyclic redundancy checksum in the bitstream is calculated on configuration data after the configuration data has been encrypted.

9. (Currently amended) A bitstream for configuring a plurality of PLDs comprising:
a first plurality of words for controlling loading of configuration data into a first PLD; and

a second first-plurality of words corresponding to the first plurality of words and
specifying a design for loading into the first PLD

a third ~~second~~-plurality of words for controlling loading of configuration data into
a second PLD; and

a fourth ~~second~~-plurality of words corresponding to the third plurality of words
and specifying a design for loading into the second PLD;

wherein at least one of the ~~first and second~~ and fourth pluralities of words
specifying a design is encrypted and the corresponding at least one of the first and
third plurality of words is unencrypted.

10. (Currently amended) The bitstream of Claim 9 wherein the ~~first~~ second plurality of
words specifying a design for loading into the first PLD is unencrypted and the fourth
~~second~~-plurality of words specifying a design for loading into the second PLD is
encrypted.

11. (Currently amended) The bitstream of Claim 9 wherein the ~~first~~ second plurality of
words specifying a design for loading into the first PLD is encrypted and the fourth
~~second~~-plurality of words specifying a design for loading into the second PLD is
unencrypted.

12. (Currently amended) The bitstream of Claim 9 wherein both of the ~~first and~~ second and fourth pluralities of words specifying a design are encrypted.

13. (Currently amended) The bitstream of Claim 12 wherein the ~~first~~ second plurality of words specifying a design for loading into the first PLD are encrypted with a first key and the fourth ~~second~~ plurality of words specifying a design for loading into the second PLD are encrypted with a second key.

14. (Currently amended) The bitstream of Claim 1 wherein each ~~the~~ plurality of encrypted words further specifies ~~specify~~ an address into which the encrypted design is to be loaded.

15. (Currently amended) The bitstream of Claim 1 wherein each ~~the~~ plurality of unencrypted words for controlling loading of configuration data includes a cipher block chaining initial value.

16. (Currently amended) The bitstream of Claim 1 wherein each ~~the~~ plurality of encrypted words specifying the encrypted design is ~~are~~ loaded into a single group of successive addresses.

17. (Currently amended) The bitstream of Claim 1 wherein each ~~the~~ plurality of encrypted words specifies ~~specifying~~ the encrypted design is ~~are~~ loaded into a plurality of groups of successive addresses.

18. (Original) A method of generating a bitstream with encrypted design data comprising the steps of:

forming a cipher block chaining initial value comprising a starting address for loading a design into a PLD;

combining the cipher block chaining initial value with a first word of design data to form a first combined word;

encrypting the first combined word to form a first word of encrypted data;

combining the first word of encrypted data with a second word of design data to form a second combined word; and

encrypting the second combined word to form a second word of encrypted data.

19. (Original) The method of Claim 18 wherein subsequent steps of combining and encrypting are repeated until all design data has been encrypted.

20. (Original) The method of Claim 18 wherein the cipher block chaining initial value comprises further bits not part of the starting address for loading a design into a PLD.